

## Typology of different options for metal recycling by Private Sector

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# The origin of DOWA

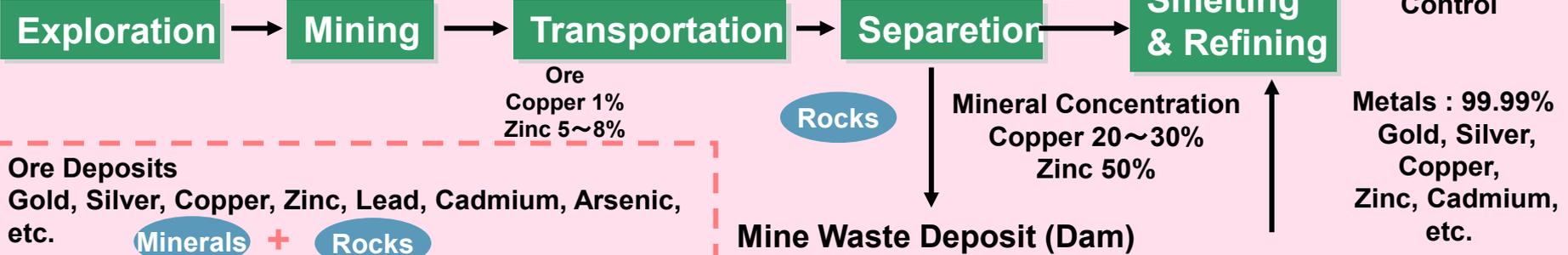


- Established in 1884 as mining company
- Treating “black-ore” which contains a lot of impurity
- Changed materials from “ores” to “recyclables”

# DOWA

## Mining to Waste Management & Recycling

### <Mining and Smelting Business>



### Metal Recycling

### <Environmental Management Business>

#### • Soil Remediation



Soil contamination: Lead, arsenic, cadmium, etc.

Metals + Oils + VOC + Soil

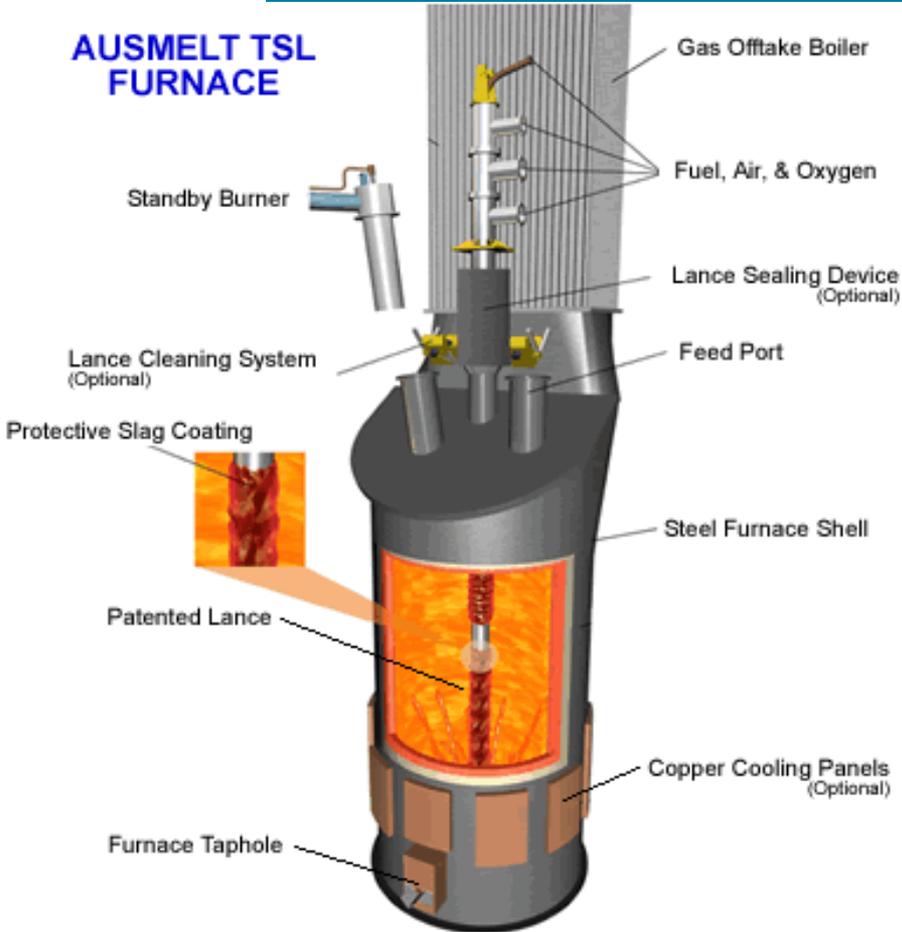
※ Soil Contamination = contaminants created by humans

#### • Waste management



## Metal Recycling Technology of DOWA

### AUSMELT TSL FURNACE

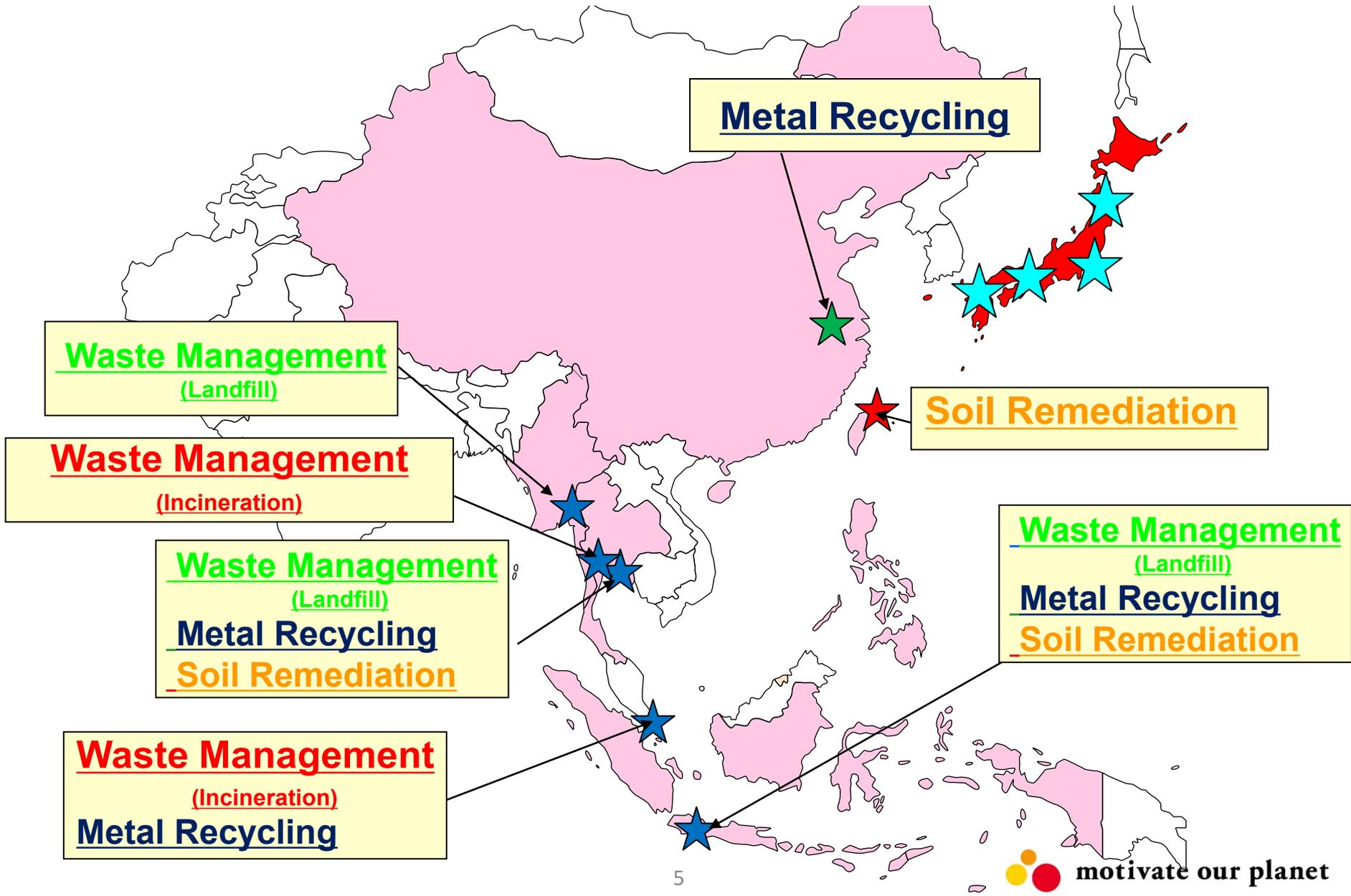


### New Type Furnace for Secondary Materials



<b>Au</b>	<b>Ag</b>	<b>Zn</b>	<b>Ga</b>	<b>Bi</b>	<b>Pt</b>	<b>Pd</b>	<b>Rh</b>	<b>Sb</b>	<b>Ru</b>	<b>Sn</b>
<b>Cu</b>	<b>Cd</b>	<b>Pb</b>	<b>Ge</b>	<b>In</b>	<b>Se</b>	<b>Te</b>	<b>S</b>	<b>Co</b>	<b>Li</b>	<b>Ni</b>

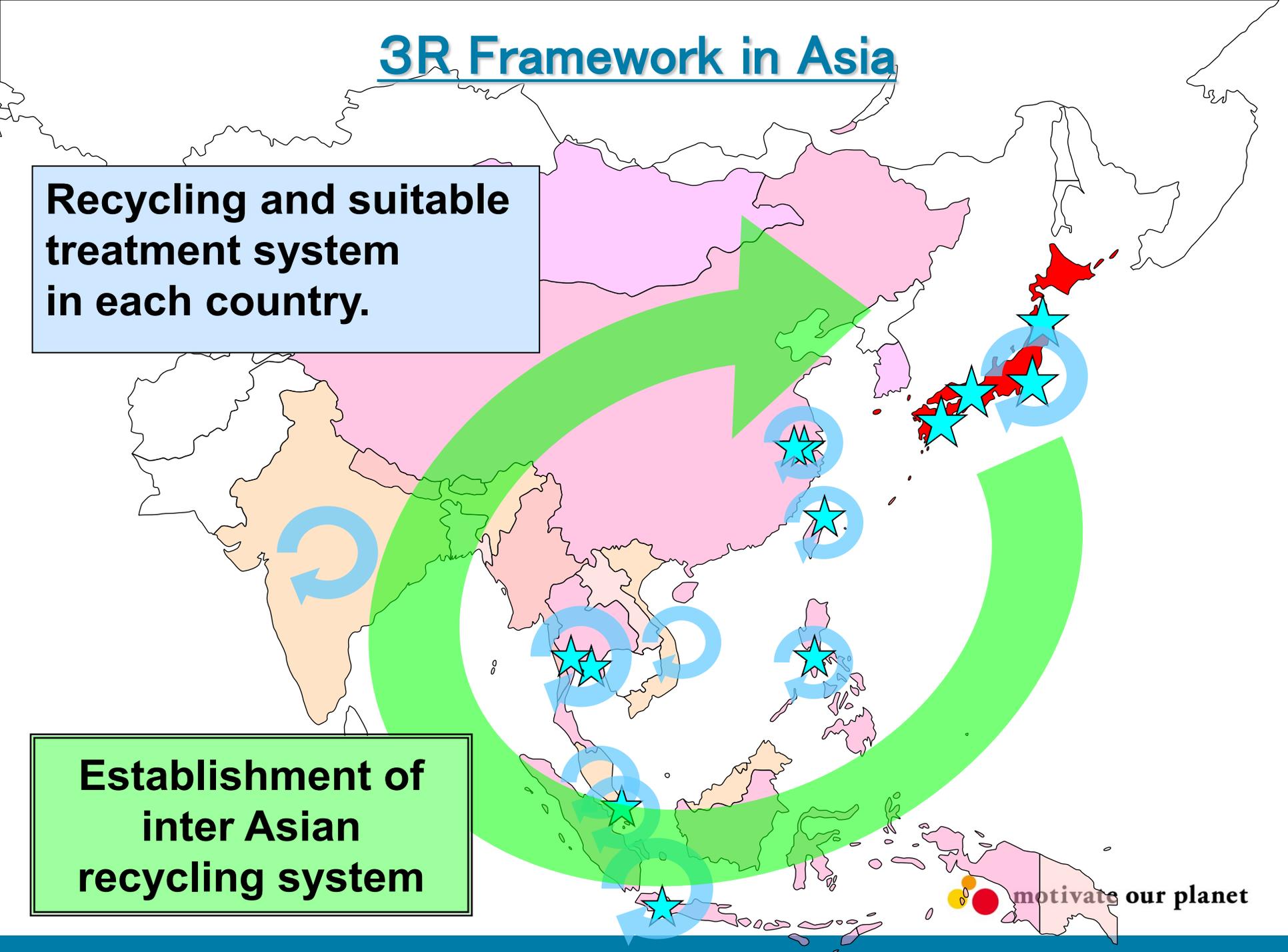
## DOWA's Network in Asia



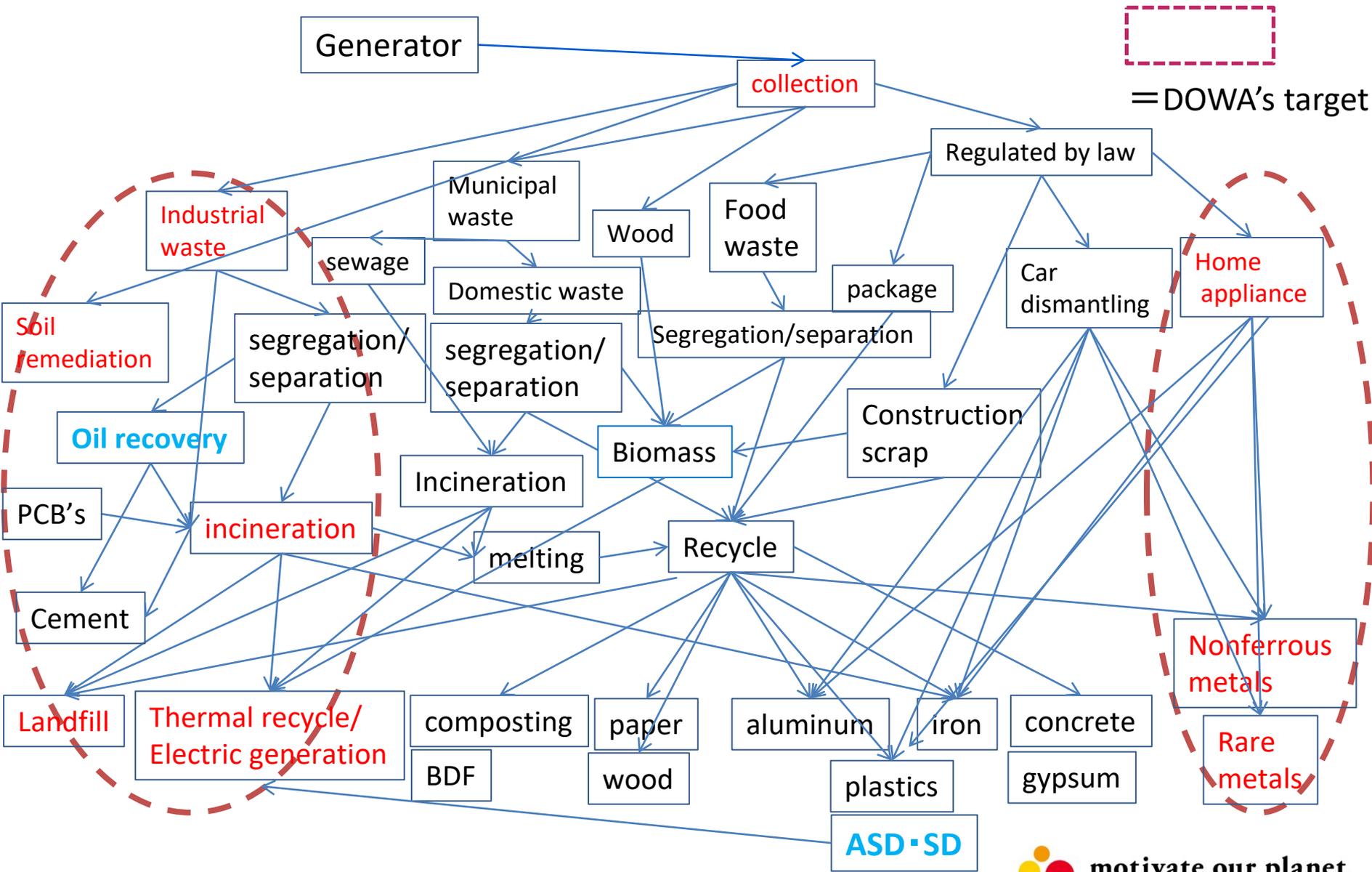
# 3R Framework in Asia

**Recycling and suitable treatment system in each country.**

**Establishment of inter Asian recycling system**



# Waste/Recycle material flow



# Key Points from our experience

Generator

collection

## 1. Collection

How to collect recyclables/waste efficiently

## 2. Treatment

How to treat recyclables/waste properly, flexibly

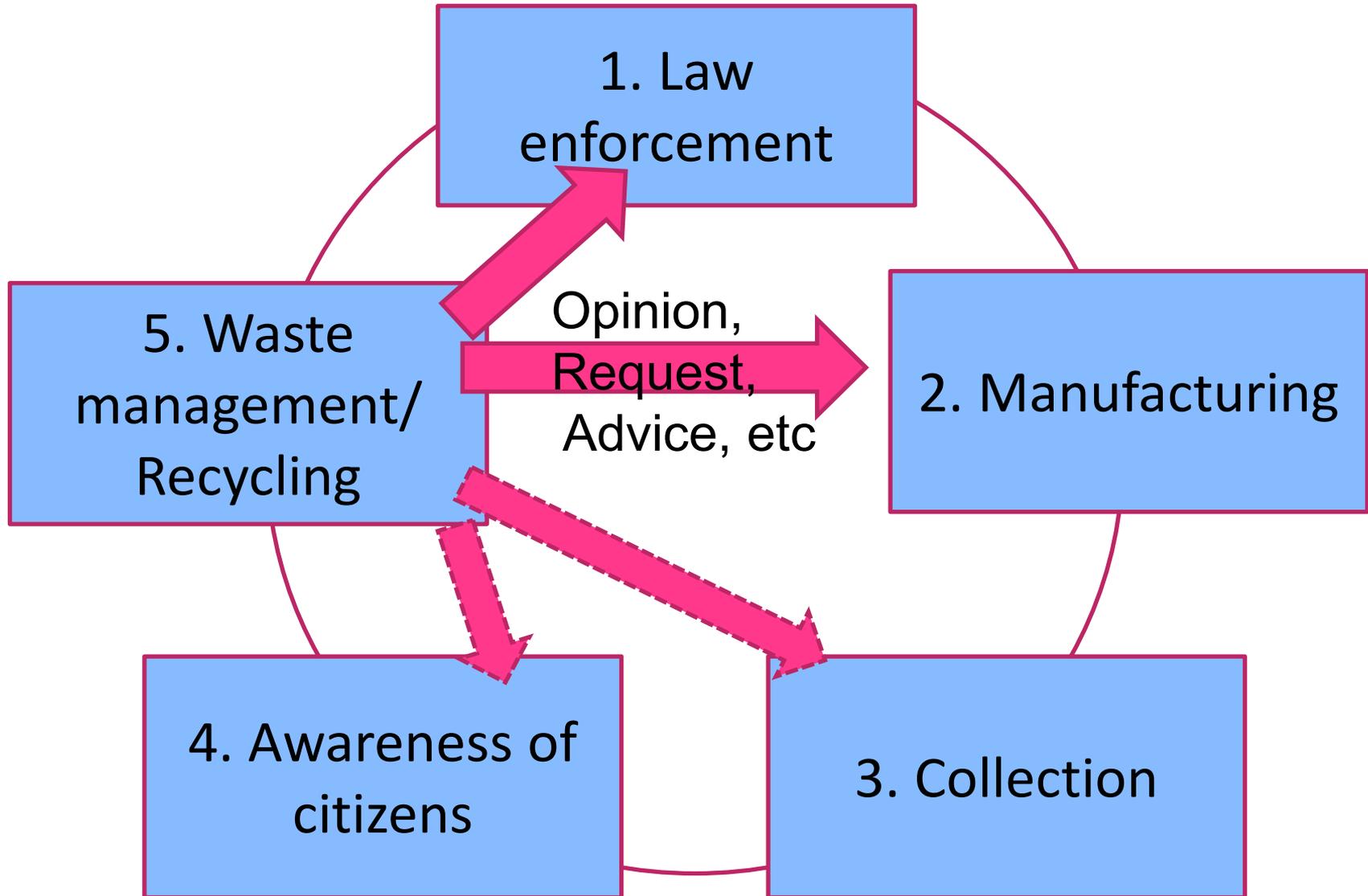
Need to consider more close co-operation, industry reorganization, cross-border co-operation in Asia-Pacific (e.g. Asia Pacific Waste Management & Recycling Centre)

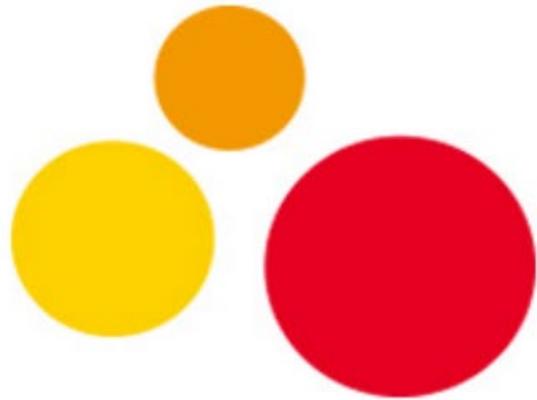


# Key Factors for Promoting 3R Activities



# “Operation oriented” to “3R oriented”





**motivate our planet**®

Our mission at DOWA ECO-SYSTEM is  
to discover, nurture and bring to life the ideals  
of people and companies who share our planet.